# TECHNICAL REVIEW DOCUMENT For Renewal of OPERATING PERMIT 950PWE103

to be issued to:

DCP Midstream, LP.
Kersey/Mewbourn Gas Processing Plant
Weld County
Source ID 1230090

Prepared by Lisa Clarke November – December 2007; October 2008; May 2009

# I. PURPOSE

This document will establish the basis for decisions made regarding the applicable requirements, emission factors, monitoring plan and compliance status of emission units covered by the renewed operating permit proposed for this site. The original Operating Permit was issued June 1, 1999, and expired on June 1, 2004. This document is designed for reference during the review of the proposed permit by the EPA, the public, and other interested parties. The conclusions made in this report are based on information provided in the renewal application submitted May 30, 2003; additional information received February 24 and October 20, 2004; August 24, 2005; May 9 and July 12, 2006; June 8 and November 15, 16, 2007; previous inspection reports, and various e-mail correspondence, as well as telephone conversations with the applicant. Please note that copies of the Technical Review Document for the original permit and any Technical Review Documents associated with subsequent modifications of the original Operating Permit may be found in the Division files as well as on the Division website at <a href="http://www.cdphe.state.co.us/ap/Titlev.html">http://www.cdphe.state.co.us/ap/Titlev.html</a>.

Any revisions made to the underlying construction permits associated with this facility made in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, Part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised construction permit.

In addition to the changes requested by DCP Midstream in the renewal application, the Division has included changes to make the permit consistent with recently issued permits, including comments made by EPA on other Operating Permits, as well as to correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

### II. SOURCE DESCRIPTION

The Kersey/Mewbourn Gas Processing plant is classified as a natural gas processing plant as set forth under Standard Industrial Classification 1321. Natural gas is delivered to the plant by pipeline. After condensate is removed from the gas by the inlet scrubbers, the inlet gas is subsequently compressed to processing pressures. The inlet gas is then chilled by the propane refrigerant to remove a natural gas liquid (NGL) product from the stream. The closed loop refrigeration process also acts to stabilize the NGL product. The gas plant consists of two (2) gas processing skids, identified as Plant A and Plant B, to separate ethane, propane, and heavier NGL products from the incoming natural gas stream. All NGL products are transported off-site by pipeline.

The site consists of fifteen (15) engines powering natural gas compressors, one (1) engine firing an air compressor, two (2) natural gas processing skids, one triethylene glycol (TEG) dehydration system, one ethylene glycol (EG) natural gas dehydration, a 12 MMBtu/hr hot oil heater, a condensate truck load-out rack, and four (4) 400 barrel (16,800 gallon) stabilized condensate storage tanks.

The TEG skid is designed to dehydrate the inlet gas feeding to Plant B. The Plant B TEG dehydration system operates with a closed loop Vapor Recovery Unit (VRU) that is inherent to the process. The vapors collected in the VRU are recompressed and routed to the inlet gas stream, making this unit a closed-vent system.

The EG dehydration system is used to dehydrate the inlet gas feeding to Plant A. The EG unit is under APEN thresholds and considered to be an insignificant activity for the purposes of this permit.

Condensate is first collected in a 60,000 gallon pressurized bullet tank. The pressure in the tank is maintained at about 38 PSIG by a vapor recovery unit. Condensate is manually transferred from the bullet tank to each of the 400-barrel stabilized condensate storage tanks. The condensate in the 400-barrel tanks is transported off-site by tanker truck.

The Kersey/Mewbourn Gas Processing Plant is located southeast of Gilcrest, Colorado at the intersection of Weld County Roads (WCR) 35 and 38. The area in which the plant operates is classified as attainment for all pollutants except ozone. It is classified as non-attainment for ozone and is part of the 8-hr Ozone Control Area as defined in Regulation No. 7, Section II.A.16. Wyoming is an affected state within 50 miles of the plant. Rocky Mountain National Park is a Federal Class I designated areas within 100 kilometers of the plant.

NOTE: This facility may become subject to additional provisions in State Regulation 7 pending updates. Any additional provisions will be included at a later date.

#### **MACT Applicability**

#### **HHH – Natural Gas Transmission and Storage**

This facility is not a natural gas transmission and storage facility as described in 40 CFR Part 63 Subpart HHH, "National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage". The facility is a natural gas processing plant. In addition, this facility is a true minor source of Hazardous Air Pollutants (HAPs). Therefore, this facility is not subject to this MACT.

#### HH - Oil and Natural Gas Production Facilities

Although this facility is a true minor of HAPs, there are two dehydrators present. However, one of the dehydrators is an ethylene glycol dehydrator (Plant A – point 064) and not subject to the MACT HH. The other dehydrator, a triethylene glycol dehydrator at Plant B (AIRS Point 065) runs through a vapor recovery unit, which is inherent to the process, and only has safety relief devices for venting. The MACT HH defines this system as a "closed-vent system," or a system that is not open to the atmosphere and is composed of piping, ductwork, connections, and if necessary, flow inducing devices that transport gas or vapor from an emission point to one or more control devices. Since the standards for the MACT HH are for the process vents (i.e. the dehydration unit reboiler vent and the vent from the GCG separator (flash tank), if present), this particular unit is not subject to the MACT HH requirements. The facility has been designed as an inherent closed-loop system from start-up.

#### **ZZZZ – Stationary Reciprocating Internal Combustion Engines**

The final rule for RICE was published in the Federal Register on June 15, 2004. Under the rule, for production field facilities, only emissions from glycol dehydrators, storage vessels with the potential for flash emissions, reciprocating internal combustion engines and combustion turbines need to be aggregated to determine if the facility is a major source for HAPS. An analysis was conducted to determine HAP emissions from the equipment at this facility. Total HAP emissions based on permitted production were calculated to be 10.3 TPY, with no single HAP exceeding 6 TPY. This facility is a true minor source of HAPs. Therefore, the major source rules for RICE MACT do not apply to the Kersey/Mewbourn gas processing plant.

The area source rules for this MACT were published in the Federal Register on January 18, 2008. These rules do not currently cover existing RICE at area sources. According to 40 CFR 63.6590(a)(2)(iii), the new or reconstructed date for this MACT is on or after June 12, 2006. Engine C179 has a manufacturer date of January 12, 1973 and is not subject to this regulation. However, engines C243 and C210N, the Caterpillar and Minneapolis Moline units, have not been constructed as of the date of permit issuance. Therefore, these units will be subject to the area source requirements of MACT ZZZZ. New affected engines at area sources meet the requirements of MACT ZZZZ by meeting the requirements of NSPS JJJJ (40 CFR 63.6590(c)); no other requirements under the MACT ZZZZ apply.

#### **NSPS Applicability**

#### JJJJ – Spark Ignition Internal Combustion Engines

Since engines C243 and C210N have not yet been constructed, these two units are subject to the requirements of NSPS Subpart JJJJ, which is streamlined with the area source requirements of MACT ZZZZ.

#### **State Regulations**

#### **Regulation 7: XVII.E (State Only)**

Section XVII.B.4 states that internal combustion engines subject to an NSPS standard are not subject to Section XVII. Engine C243 is subject to NSPS JJJJ (which includes the same emission standards as the Regulation 7 Section XVII requirements) and so the engine is exempt from Section XVII. Engine C179 was constructed before the July 1, 2007 applicability date. Engine C210N is under 100 HP and subject to NSPS JJJJ, and is not subject to this regulation. All other engines at the facility were constructed well before the applicability date.

#### **Compliance Assurance Monitoring (CAM)**

The following emission points at this facility use a control device to achieve compliance with an emission limitation or standard to which they are subject and have pre-control emissions that exceed or are equivalent to the major source threshold (100 tons per year). They are therefore subject to the provisions of the CAM program as set forth in 40 CFR Part 64 as adopted by reference into Colorado Regulation No. 3, Part C, Section XIV:

C126, C133, C149, C130, C125, C131, C-179 – Waukesha Model L-7042GSI ICE C167 – Waukesha Model L-7044GSI ICE

The primary purpose of the CAM program is to supplement or enhance the Operating Permit monitoring requirements as necessary to adequately demonstrate compliance. The exhaust gas temperature on each engine is monitored continuously with thermocouples. The pressure drop across the catalyst is measured in inches of water with a continuously operating manometer. The proper performance envelopes for the control device parameters being monitored are any temperature between 750 °F and 1250 °F and a pressure drop within three inches of water.

The CAM provisions require a source to monitor at least one indicator of performance per control device and to perform at least one parameter observation per 24 hours. DCP selected to continuously monitor the exhaust gas outlet temperature and pressure drop across the catalyst. The daily measurement frequency satisfies the minimum CAM requirement.

The following table presents the facility-wide Potential To Emit (PTE).

<u>Pollutant</u>	Potential to Emit (tpy)	Actual (tpy) Data Year 2006
NOx	221.5	197.6
VOC (including fugitive VOCs)	181.5	147.3
CO	220.5	196.8
HAPs (for informational purposes only)	10.3	8.9

The potential emissions classify this plant as a major source with respect to Prevention of Significant Deterioration (PSD) requirements. However, the permitted emissions classify this plant as a synthetic minor source with respect to Prevention of Significant Deterioration (PSD) requirements. All of the engines have non-selective catalytic reduction units and air/fuel ratio controllers to control emissions. The actual emissions from 2006 are lower than the PTE because of the addition of Waukesha 1,478 HP, Caterpillar 325 HP and Cummins 84 HP engines to the facility as well as an increase in production in the Weld County area. The actual emissions for HAPs from 2006 are higher because of previously overestimated HAP emission factors that have now been corrected using AP-42 data.

This plant is located in an area designated as attainment for all pollutants except ozone. Based on the information provided in the Title V application, this facility is categorized as a NANSR major stationary source (Potential to Emit of VOC or NOx  $\geq$  100 Tons/Year). Future modifications at this facility resulting in a significant net emissions increase (see Reg 3, Part D, Sections II.A.26 and 42) for VOC or NOx or a modification which is major by itself (i.e. a Potential to Emit of  $\geq$  100 TPY of either VOC or NOx) may result in the application of the NANSR review requirements.

Based on the information provided by the applicant, this source is categorized as a minor stationary source for PSD as of the issue date of this permit. Any future modification which is major by itself (Potential to Emit of  $\geq 250$  TPY) for any pollutant listed in Regulation No. 3, Part D, Section II.A.42 for which the area is in attainment or attainment/maintenance may result in the application of the PSD review requirements.

#### **Emission Sources**

The following sources are specifically regulated under terms and conditions of the Operating Permit for this plant:

#### **Internal Combustion Engines**

C133, C149, C125, C131 – Waukesha 1,232 HP Engines

C126, C130 – Waukesha 1,100 HP Engines

C167 – Waukesha 1,680 HP Engine

C-179 – Waukesha 1,478 HP Engine

C127, C129, C128 - Waukesha 711 HP Engines

C134 - Waukesha 750 HP Engine

C211 – Caterpillar 300 HP Engine

C132 – Waukesha 450 HP Engine

C243 – Caterpillar 325 HP Engine

C210 – Minneapolis Moline 100 HP Engine

C210N – Cummins 84 HP Engine

Natural Gas Fired 12 MMBtu/Hr Hot Oil Heater (P016)

Fugitive Emissions of Volatile Organic Compounds from Equipment Leaks (Plants A & B) (F017)

**Condensate Tank Truck Loadout Rack (P019)** 

**Stabilized Condensate Tanks (P024)** 

#### Accidental Release Program (112(r))

Section 112(r) of the Clean Air Act mandates a new federal focus on the prevention of chemical accidents. Sources subject to these provisions must develop and implement risk management programs that include hazard assessment, a prevention program, and an emergency response program. They must prepare and implement a Risk Management Plan (RMP) as specified in the Rule.

Based on the information provided by the applicant, this facility is subject to the provisions of the Accidental Release Prevention Program (Section 112(r) of the Federal Clean Air Act). The Risk Management Plan required by the Act was submitted to the appropriate authority and/or a designated central location by June 20, 1999 and revised accordingly.

#### **Emission Factors**

From time to time published emission factors are changed based on new or improved data. A logical concern is what happens if the use of the new emission factor in a calculation results in a source being out of compliance with a permit limit. For this operating permit, the emission factors or emission factor equations included in the permit are considered to be fixed until changed by the permit. Obviously, factors dependent on the fuel sulfur content or heat content cannot be fixed and will vary with the test results. The formula for determining the emission factors is, however, fixed. It is the responsibility of the permittee to be aware of changes in the factors, and to notify the Division in writing of impacts on the permit requirements when there is a change in factors. Upon notification, the Division will work with the permittee to address the situation.

# III. <u>DISCUSSION OF MODIFICATIONS MADE</u>

#### **Source Requested Modifications**

#### • Internal Combustion Engines – Construction Permit 97WE0304

DCP requested modification of engines C211, C132, C126, C133, C127, C129, C128, C149, C130, C134, C210, C125, and C131. These engines will have a lower fuel heating value due to the addition of a membrane separator system to the facility in 2004, which will reroute CO2 back into the system. Therefore, the heating value for these engines will decrease from 1040 btu/scf to 840 btu/scf and also result in a corresponding increase in annual fuel consumption. The emission factors and NSCR/AFR control efficiencies will remain the same. Revised APENs were received 02/24/2004 to reflect these changes. The applicable requirements and monitoring plan remain the same.

#### • Internal Combustion Engines – Construction Permit 05WE0630

DCP requested that this permit, contained a Waukesha L-7042 GSI 1,478 HP engine equipped with NSCR and AFR, be added to the Operating Permit. This Construction Permit was issued on January 31, 2006 and an extension requested on November 21, 2007. The extension was granted on December 3, 2007. This engine is AIRS Point 075 and is labeled C-179 for DCP purposes.

- 1. Applicable Requirements The conditions of the construction permit were added to the Operating Permit. The Title V application identifies this engine as a 4-cycle, rich burn engine equipped with an air-fuel ratio controller, turbocharger, and non-selective catalytic reduction for emission control. The Division developed a CAM Plan for this engine, as well as the other seven engines subject to CAM, based on the RICE MACT.
- 2. Emission Factors The emission factors for NO<sub>x</sub>, VOC, and CO were reported in the Title V application in terms of g/hp-hr. The Division converted the emission factors to a fuel based emission factor (lb/MMBtu) based on the engine design data and higher fuel heating value. The emission factors are listed in the table below..

Pollutant	Reported Emission	Fuel Based Factor
	Factor	
$NO_x$	1.5 grams/hp-hr	0.42 lbs/MMBtu
CO	1.5 grams/hp-hr	0.42 lbs/MMBtu
VOC	1.0 grams/hp-hr	0.28 lbs/MMBtu

The engine in this permit has not yet been initially tested. Therefore, initial testing on this engine at this facility is required.

3. Monitoring Plan - The operating permit has established a procedure for the calculation of emissions based on fuel consumption and a fuel based emission factor. The fuel consumption of each engine at the facility is determined by allocating fuel use to each of the engines based on monthly hours of operation and total engine fuel use.

The Division's current (6/1/2006) portable monitoring language has been included in the permit. This requires the source to measure NO<sub>x</sub> and CO emissions quarterly.

The Btu content of the natural gas fuel shall be measured semi-annually (twice per year) using appropriate methods. DCP is also required to monitor the air fuel ratio controller monthly.

# • Internal Combustion Engine – Construction Permit 97WE0304/Permit Exempt 07WE1091

DCP applied for the APEN required permit exempt Cummins G5.9 84 HP engine, on November 16, 2007. Although this engine was permit exempt at the time of submittal, this engine is no longer permit exempt due to the location in the nonattainment ozone area. This new engine will have a similar label – C210N – as the engine it **may** replace, the Minneapolis Moline 100 HP engine onsite. The AIRS Point is new – the ID is 123/0090/077. Please note that as of permit issuance date (May 1, 2009), this engine has not yet been constructed or installed. The APEN expiration date for this engine is November 13, 2012.

- 1. Applicable Requirements
  - Monthly recordkeeping and calculation of NOx, CO, and VOC
  - Plant fuel meter tracking of natural gas consumption
  - Hours of Operation annually
  - Semi-annual Btu heat content analysis
  - 20% opacity
  - Good operation & maintenance
  - Serial Number Certification
  - NSPS JJJJ Requirement Source must submit complete application within 60 days of engine installation.
- 2. Emission Factors Emissions are determined using manufacturer's specifications for the engine and the catalyst. AP-42 factors were used to determine uncontrolled HAP emissions. The catalyst manufacturer guaranteed 50% destruction of all Hazardous Air Pollutants. The emission factors are detailed in the table below:

Pollutant	Reported Emission Factor	Fuel Based Factor
$NO_x$	2.0 grams/hp-hr	0.54 lbs/MMBtu
СО	2.0 grams/hp-hr	0.54 lbs/MMBtu
VOC	1.0 grams/hp-hr	0.28 lbs/MMBtu

3. Monitoring Plan – The source must monitor the air fuel ratio (AFR) millivolt reading and the catalytic converter (NSCR) inlet and outlet temperature and pressure measured once per month and recorded.

#### Internal Combustion Engine – Construction Permit 05WE0631

DCP requested the addition of this engine, a Caterpillar G3406TA 325 HP engine equipped with NSCR and an AFR, to the Operating Permit. This Construction Permit was issued on January 31, 2006 and a modification currently in process to be issued. This engine is AIRS Point 076 and is labeled C243 for DCP purposes. *Please note that* 

as of permit issuance date (May 1, 2009), this engine has not yet been constructed or installed. The Construction Permit expiration date (36 months from permit issuance) is June 5, 2011.

- 1. Applicable Requirements The conditions of the construction permit were added to the Operating Permit. The Title V application identifies this engine as a 4-cycle, rich burn engine equipped with air-fuel ratio controller, turbocharger, and non-selective catalytic reduction for emission control. The requirement for NSPS JJJJ is that the source must submit a complete application with applicable requirements within 60 days of engine installation.
- 2. Emission Factors The emission factors for NO<sub>x</sub>, VOC, and CO were reported in the Title V application in terms of g/hp-hr. The Division converted the emission factors to a fuel based emission factor (lb/MMBtu) based on the engine design data and higher fuel heating value. The emission factors are listed in the table below.

Pollutant	Reported Emission Factor	Fuel Based Factor
$NO_x$	1.9 grams/hp-hr	0.558 lbs/MMBtu
CO	1.9 grams/hp-hr	0.558 lbs/MMBtu
VOC	1.0 grams/hp-hr	0.297 lbs/MMBtu

The engine in this permit has not yet been initially tested. Therefore, initial testing on this engine at this facility is required.

3. Monitoring Plan - The operating permit has established a procedure for the calculation of emissions based on fuel consumption and a fuel based emission factor. The fuel consumption of each engine at the facility is determined by allocating fuel use to each of the engines based on monthly hours of operation and total engine fuel use.

The Division's current (6/1/2006) portable monitoring language has been included in the permit. This requires the source to measure NO<sub>x</sub> and CO emissions quarterly.

The Btu content of the natural gas fuel shall be measured semi-annually (twice per year) using appropriate methods. DCP is also required to monitor the air fuel ratio controller monthly.

## Natural Gas Fired 12 MMBtu/hr Hot Oil Heater – Construction Permit 97WE0304

DCP requested modification of this heater P016. This heater will have a lower fuel heating value due to the addition of a membrane separator system to the facility in 2004, which will reroute CO2 back into the system. Therefore, the heating value for this heater will decrease from 1040 btu/scf to 840 btu/scf and also result in a corresponding increase

in annual fuel consumption. The emission factors will remain the same. A revised APEN was received 02/24/2004 to reflect this change. The applicable requirements and monitoring plan remain the same.

#### • Fugitive VOC Emissions – Construction Permit 97WE0304

Based on the Regulation 7 requirements, DCP requested the deletion of any grandfathered fugitive emissions from equipment leaks at this facility (P023). Equipment leaks have been condensed into one point, F017, or AIRS Point 067, encompassed within Construction Permit 97WE0304. Emissions will be emitted from component leaks. A revised APEN was received August 24, 2005 to request a more appropriate VOC limit.

- 1. Applicable Requirements
  - 9.20 TPY VOC emissions.
  - Compliance with NSPS KKK
  - The source must submit a NSPS KKK report detailing the specific applicable and non-applicable requirements of NSPS KKK within 6 months of permit issuance. This report will be reviewed and used by the inspector to determine compliance.
- 2. Emission Factors- Emissions are determined using appropriate emission factors from the EPA document: Protocol for Equipment Leak Emission Estimates, EPA-453/R-95-017).
- 3. Monitoring Plan The source must conduct a component count within 90 days of permit issuance. Records of component changes shall be maintained and a physical hard count shall be conducted at least every five years.

#### Condensate truck loadout – Construction permit 97WE0553

DCP requested that the condensate truck loadout be increased based on actual throughput, with a revised APEN received March 27, 2007, which has been incorporated into the Operating Permit.

- Applicable Requirements Compliance limit of 26.86 tons of volatile organic compounds per year and 8 million gallons of condensate to be loaded per year.
   The loadout emissions report only the NonMethane, NonEthane VOC (NMEVOC) as reported in the most recent analysis of the product. The Division requires a copy of the analysis to be kept on-site.
- 2. Emission Factors The truck loadout emissions are calculated using the appropriate equation and emission factors from AP-42.
- 3. Monitoring Plan The emissions of each pollutant and the gallons of condensate loaded on trucks shall be calculated by the end of the subsequent calendar month. A twelve (12) month rolling total of emissions shall be maintained to verify compliance with the long-term emission limitation. By the end of the new calendar month, a total shall be calculated for the previous 12 calendar months, and compliance determined and recorded. All calculations and compliance determinations shall be made available for Division review upon request.
- Stabilized Condensate Tanks Incorporated into Operating Permit Only Pursuant to Regulation No. 3, Part A, Section II.D.1.eeee, DCP applied for the addition

of these four (4) vertical fixed condensate tanks first on December 27, 2002 and then with updated technical information, on October 20, 2004. On July 12, 2006, DCP requested an increase in the emissions from the tanks based on EPA TANKS 4.0. These four tanks have been incorporated into the Operating Permit.

- 1. Applicable Requirements Compliance limit of 8.51 tons of volatile organic compounds per year. These tanks would be subject to Regulation No. 7, except that DCP has actual uncontrolled VOC emissions of atmospheric storage tanks (not at gas plants) in the 8-hour Ozone Nonattainment Area of less than 30 tons of VOC per year (for 2004 2006 and currently for 2007). Therefore, these tanks are not subject to the condensate tank control requirement for Regulation No. 7.
- 2. Emission Factors Compliance factor of 2.13 lb per 1000 gallons of condensate, determined from site-specific sampling and HYSIS. The following equation is used to calculate emissions:

Tons per month = gallons per month x 2.13 lbs / 1000 gallons / 2000 lbs per ton

- 3. Monitoring Plan A twelve (12) month rolling total of emissions shall be maintained to verify compliance with the long-term emission limitation. By the end of the new calendar month, a total shall be calculated for the previous 12 calendar months, and compliance determined and recorded. All calculations and compliance determinations shall be made available for Division review upon request.
- The responsible official and contact person was updated as requested by DCP.
- The company name has been changed from Duke Energy Field Services, LP to DCP Midstream, LP.

#### **CAM Plan Review**

DCP did initially submit a CAM Plan for these sources. However, DCP has accepted a deviation from the original plan due to discrepancies in the proposed indicators and ranges. The Division does not concur that the original plan uses the correct indicators and ranges to ensure the proper operation of the control device, the catalyst. Therefore, the Division developed a CAM Plan for these engines based on the RICE MACT. The Division-approved CAM Plan contains two indicators: temperature of the exhaust gas into the catalyst and the pressure drop across the catalyst. The indicator ranges are a temperature between 750° F and 1250° F and  $\pm$  3 inches of water, respectively. The temperature into the catalyst shall be measured at a minimum daily and the pressure drop recorded once per month.

#### **Other Modifications**

In addition to the modifications requested by the source, the Division has included changes to make the permit more consistent with recently issued permits, include comments made by EPA on other Operating Permits, as well as correct errors or omissions identified during inspections and/or discrepancies identified during review of this renewal.

These changes are as follows:

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It should be noted that the monitoring and compliance periods and report and certification due dates are shown as examples. The appropriate monitoring and compliance periods and report and certification due dates will be filled in after permit issuance and will be based on permit issuance date. Note that the source may request to keep the same monitoring and compliance periods and report and certification due dates as were provided in the original permit. However, it should be noted that with this option, depending on the permit issuance date, the first monitoring period and compliance period may be short (i.e. less than 6 months and less than 1 year).

Added language specifying that the semi-annual reports and compliance certifications
are due in the Division's office and that postmarks cannot be used for purposes of
determining the timely receipt of such reports/certifications.

#### <u>Section I – General Activities and Summary</u>

- The description of the source was updated to reflect the current status of the facility.
- The attainment status of Weld County was updated to reflect the current ozone nonattainment status of this area.
- Condition 1.3 was updated to reflect all of the correct incorporated Construction Permits.
- Conditions 13 and 17 in Condition 1.4 were renumbered to 14 and 18 and Condition 21 in Condition 1.5 was renumbered to 22. The renumbering changes were necessary due to the addition of the Common Provisions requirements in the General Conditions of the permit.
- In Condition 1.4, General Condition 3.g (new general condition for general provisions) was added as a State-only requirement.
- The language for the alternative operating scenario for temporary engine replacement was updated to reflect current language (10/08/2008 version). The AOS table was also updated to reflect the engines at the facility that are applicable.
- Added a "new" Section 5 for CAM.
- The previous Section 5, outlining the applicability and description of Subpart KKK requirements, was deleted due to repetition.
- Summary table 6.1 has been updated and serial numbers removed (unnecessary).

#### Section II – Specific Permit Terms

• This section was completely revised. Section II.1 was split up into different engine categories – engines subject to CAM (now Section II.1), engines subject to Regulation 7 (now Section II.2), and permit required engines (now Section II.3). The natural gas fired heater, fugitives, condensate loadout, the addition of the condensate tanks, MACT HH requirements, CAM conditions, updated portable monitoring, general operation, and calculations were all revised, added, and/or reorganized.

#### Section II.1 – Internal Combustion Engines – Subject to CAM

- This section was reorganized to include only engines subject to CAM.
  - o The engines included are: C133, C149, C125, C131, C126, C130, C167, and C179
- Conditions 1.1 and 1.2 from the previous permit were combined to include both emission limits and the corresponding emission factor calculation.
- Condition 1.3 and 1.4 were renumbered respectively.
- Added portable monitoring requirement (Section II.10).
- Condition 1.5 Added good operation and maintenance requirement.
- Condition 1.6 Put in operating hour recordkeeping.
- Condition 1.7 Inserted Air Fuel Ratio monitoring and recording.
- Condition 1.8 Added CAM requirements (Section II.9).
- Condition 1.9 Added the Control of Emissions from Stationary and Portable engines in the 8-hour Ozone Control (Nonattainment) Area.
- Condition 1.10 Put in serial number submission for engine C179 only.
- Condition 1.12 Inserted engine statewide control requirement for engine C179 only.
- Removed Section II.6 P020 Waukesha 1680 HP Compressor Engine since it is now encompassed within Section II.1.

# <u>Section II.2 – Internal Combustion Engines – Subject to Regulation 7</u>

- This section was added for organizational purposes to differentiate between engine categories.
  - o Engines in the section are: C127, C129, C128, and C134
- Condition 2.1 Added emission limits & calculation.
- Condition 2.2 Put in fuel use limitations
- Added portable monitoring requirement (Section II.10).

- Condition 2.3 Added verification of natural gas Btu content.
- Condition 2.4 Included opacity requirement.
- Condition 2.5 Required source to record operating hours.
- Condition 2.6 Inserted good operation and maintenance requirement.
- Condition 2.7 Required source to monitor air/fuel ratio controller.
- Condition 2.8 Inserted NSCR monitoring requirement.
- Condition 2.8 Added the Control of Emissions from Stationary and Portable engines in the 8-hour Ozone Control (Nonattainment) Area.

#### Section II.3 – Internal Combustion Engines – Under 500 Horsepower

- This section was added for organizational purposes to differentiate between engine categories.
  - o Engines in the section are: C211, C132, C210, C210N, and C243.
- Condition 3.1 Added emission limits & calculation.
- Condition 3.2 Put in fuel use limitations
- Added portable monitoring requirement (Section II.10).
- Condition 3.3 Added verification of natural gas Btu content.
- Condition 3.4 Included opacity requirement.
- Condition 3.5 Inserted good operation and maintenance requirement.
- Condition 3.6 Required source to record operating hours.
- Condition 3.7 Required source to monitor air/fuel ratio controller.
- Condition 3.8 Inserted NSCR monitoring requirement.
- Condition 3.9 Added compliance testing for engine C243 only.
- Condition 3.10 Put in serial number submission for engine C243 only.
- Condition 3.11 Inserted NSPS JJJJ submittal requirement for engine C243.
- Condition 3.12 Inserted NSPS JJJJ submittal requirement for engine C210N.
- Condition 3.13 Inserted MACT ZZZZ area source requirements for engines C243 and C210N.

#### Section II.4 – P016 – Natural Gas Fired 12 MMBtu/hr Hot Oil Heater

• This section (previously Section II.3) was not changed except to correct the emission factors in the summary table and update language.

#### Section II.5 – F017 – Fugitive VOC Emissions from Equipment Leaks (Plant A & B)

- This section (previously Section II.4) was moved for organizational purposes.
- Condition 5.1 was changed per the APEN received on August 24, 2005 to reflect the most accurate emissions.
- Added conditions 5.2 and 5.3 This **entire** facility is subject to NSPS KKK. The equipment leaks and the facility as a whole have been modified after January 20, 1984. In addition, the Regulation No. 7 requirements for gas plants apply.
- Removed Section II.5 F018 Plant A Fugitive VOC Emissions from Equipment Leaks since all equipment leaks are now encompassed in one point.

#### Section II.6 – P019 – Condensate Tank Truck Loadout Rack

- This section (previously Section II.2) was moved for organizational purposes.
- Condition 6.1 and summary table were updated to reflect to most accurate emissions per the APEN received February 2, 2009.
- Condition 6.2 was added to describe how to comply with the emission limitations.

#### Section II.7 – P024 – Stabilized Condensate Tanks – "new" section

- Condition 7.1 Added compliance limits, emission factors per the APEN submitted February 2, 2009, as well as 12-month rolling total recordkeeping and calculation monitoring requirements.
- Condition 7.2 Added opacity requirement.

#### Section II.8 - "new" section – Added CAM requirements.

#### Section II.9 – Portable Monitoring (version 6/1/2006)

- This section (previously Section II.13) was moved for organizational purposes and updated to the most recent version.
- Updated fuel based emission factors table in Calculations section (now Section II.11).
- Removed conditions Compliance Testing, Documents Required, Upset Conditions and Breakdowns, NSCR Monitoring, and Air/Fuel Ratio Controller (previously sections II.8, 9, 11, 12, and 14).

#### Section III, Permit Shield

• Updated applicable emission unit descriptions and numbers.

#### Section IV

• Updated General Conditions to version 02/20/2007.

#### Appendix A

- Updated safety equipment list.
- Updated plot plan submittal date.
- Updated list of insignificant activities, detailing specific units as well as the generic list. Removed all condensate tanks as those are covered in Condition 7.

#### Appendices B & C

- Updated to 2/2/2007 version.
- Updated report tables to current facility units.

# Appendix D

• Updated EPA address.

# Appendix G – "new" appendix

• Added Compliance Assurance Monitoring Plan.

# Appendix H - "new" appendix

• Added AOS Applicability Report Examples.